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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TANG, KENNETH

ART UNIT	PAPER NUMBER
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2195

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/681,930

Applicant(s)

PABLA ET AL.

Examiner

Kenneth Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the Amendment filed on 12/6/04. Applicant's arguments has been fully considered but is not found to be persuasive.
2. Claims 1-18 are presented for examination.

Claim Rejections - 35 USC § 112

3. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "PDA" in claim 11 is used by the claim to mean "personal data assistant", while the accepted meaning is personal digital assistant." The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-15 and 17-18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson et al. (hereinafter Atkinson) (US 2002/0012329 A1) in view of French-St. George et al. (hereinafter French-St. George) (US 6,012,030).

5. As to claim 18, Atkinson teaches a multi-tier system for providing vendor-neutral communication to mobile devices (*page 3, [0023]*) comprising:

a client device having a virtual machine capable of processing device-independent applications (*page 2, [0020]*),

a plurality of servers providing a plurality of services to said client device in the form of said device-independent applications (*page 5, [0050]*);

a gateway for preprocessing communications between said client device and said plurality of servers thereby reducing processing requirements on said client device (*page 1, [0012] through page 2, [0013]*);

a plurality of peer-to-peer communication layers between said plurality of servers and said client device through said gateway, said gateway providing protocol translation between said plurality of servers and said client device (*page 6, [0051], page 2, [0021]*);

a manager object in said client device for managing said device-independent applications (*page 3, [0024], page 5, [0050], claim 9*)

6. Atkinson fails to explicitly teach each of said device-independent applications having a plurality of states, wherein said plurality of states comprises an initialization state, a background state, a foreground state, a destroy state, and a paused state.

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7. However, French-St. George teaches using a hand held portable device that provides switching between a foreground and background state of an interface (*col. 5, lines 8-20*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of using a hand held portable device that provides switching between a foreground and background state of an interface in order to gain the advantage of conserving processing power by placing inactive applications in the foreground until it is required, where switching to the background will then occur (*col. 5, lines 12-20*).

8. In addition, Atkinson and French-St. George fails to explicitly teach an initialization (start) state, a destroy (end) state, and a paused state. However, "Official Notice" is taken that both the concept and advantages of providing that an initialization (start) state, a destroy (end) state, and a paused state is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an initialization (start) state, a destroy (end) state, and a paused state to the existing system and method of Atkinson and French-St. George because these are simply the controls that allow for the switching between the background and foreground. Without such controls, the switching would not be able to occur.

9. As to claim 17, it is rejected for the same reasons as stated in the rejection of claim 18 above. In addition, Atkinson teaches a framework for the mobile devices (*page 5, [0050], page 12, [0102], page 13, [0104]*).

As to claim 1, it is rejected for the same reasons as stated in the rejection of claim 18 above. In addition, Atkinson teaches a framework for the mobile devices (*page 5, [0050], page 12, [0102], page 13, [0104]*).

10. As to claim 2, Atkinson teaches wherein said plurality of peer-to-peer layers comprises: at least one physical data link layer, a network layer, a transport layer, a session layer, a presentation layer; and an applications layer (*page 1, [0012], pages 1-2, [0013], page 2, [0020] and [0022], page 3, [0025] and [0027], page 4, [0034]*).

11. As to claim 3, Atkinson teaches wherein said at least one physical data link layer comprises landline communication between said third tier and said second tier, and wireless communication between said second tier and said first tier (*page 5, [0050], page 6, [0051], page 2, [0021]*).

12. As to claim 4, Atkinson teaches wherein said network layer uses Internet Protocol communication between said third tier and said second tier, and wireless applications protocol between said second tier and said first tier (*page 5, [0050], page 6, [0051], page 2, [0021], page 3, [0025]*).

13. As to claim 5, Atkinson teaches wherein said transport layer uses transport control protocol between said third tier and said second tier, and wireless applications protocol between

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said second tier and said first tier (*page 5, [0050], page 6, [0051], page 2, [0021], page 3, [0025]*).

14. As to claim 6, Atkinson teaches wherein said session layer uses hypertext transport protocol between said third tier and said second tier and amongst services in said third tier, and wireless applications protocol between said second tier and said first tier (*page 5, [0050], page 6, [0051], page 2, [0021], page 3, [0025]*).

15. As to claim 7, Atkinson teaches wherein said presentation layer uses a markup language between said third tier and said second tier, and a wireless markup language between said second tier and said first tier (*page 3, [0025]*).

16. As to claim 8, Atkinson teaches wherein said application layer prepares graphical data for presentation, said graphical data being available in any suitable graphical format and communicated from said third tier to said second tier, said second tier converting said graphical data to a wireless graphics format for transmission to said first tier (*pages 12-13, [0102]*).

17. As to claim 9, Atkinson teaches wherein said first tier is a wireless device (*page 1-2, [0013]*).

18. As to claim 10, Atkinson teaches wherein said wireless device is a cellular phone (*page 1, [0003]*).

19. As to claim 11, Atkinson teaches wherein said wireless device is a personal data assistant (*page 1, [0003]*).

20. As to claim 12, Atkinson teaches wherein said wireless device includes a software architecture comprising a real-time operating system layer, a virtual machine layer having at least one system class, an application layer (*page 2, [0016] and [0020], page 3, [0027]*).

21. As to claim 13, Atkinson teaches wherein said real-time operating system layer comprises a wireless small device operating system, a plurality of linking and networking application programming interfaces, and an object for updating and installing software in said wireless device (*page 1, [0004], page 3, [0023], page 5, [0050], page 6, [0051], page 2, [0021], page 3, [0025]*).

22. As to claim 14, it is rejected for the same reasons as stated in the rejections of claims 1 and 18.

23. As to claim 15, it is rejected for the same reasons as stated in the rejections of claim 18.

24. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson et al. (hereinafter Atkinson) (US 2002/0012329 A1) in view of French-St. George et al.

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(hereinafter French-St. George) (US 6,012,030), and further in view of Kernighan et al. (hereinafter Kernighan) (“The C Programming Language”, 2nd Edition).

25. As to claim 16, it is rejected for the same reasons as stated in the rejections of claim 18. However, Atkinson and French fail to explicitly teach creating a registry that includes an application object class ID for each of the application object class. Kernighan teaches having registers to store object identifiers (*page 210, Section A8.1*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of creating a registry that includes an application object class ID for each of the application object class to the existing system of Atkinson and French because this would result in smaller and faster programs (*page 83, section 4.7*).

Response to Arguments

26. *Applicant argues on page 9 of the Remarks that Atkinson nor French discloses or suggests a manager object capable of managing each of the at least one application object class.*

In response, the Examiner respectfully disagrees. For example, Atkinson teaches manager object (protocol stack or object exchange protocol) for an object (object form) in a class file or class archive (*see page 3, [0024]-[0025], claim 9, etc.*). During patent examination, the pending claims must be “given their broadest reasonable interpretation consistent with the specification.” *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be

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interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

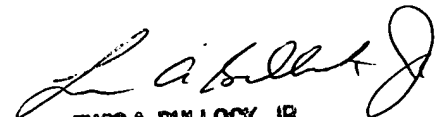
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
4/14/05


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER